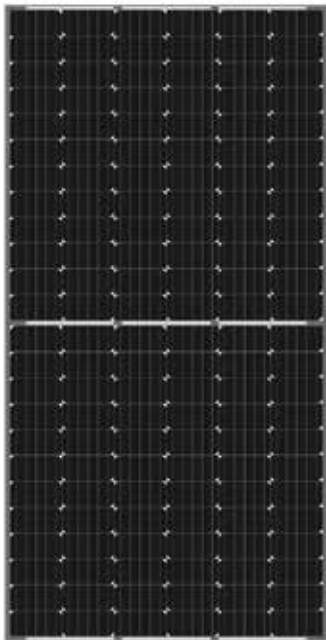


# DESERV<sup>®</sup> Extreme

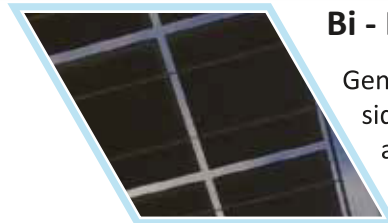
## Solar PV Module

DESERV Extreme is an innovation engineered by combining Bi-Facial and Cut Mono PERC PV Cells. The Bi-Faciality is facilitated by a 'Transparent Backsheet' developed in-house.



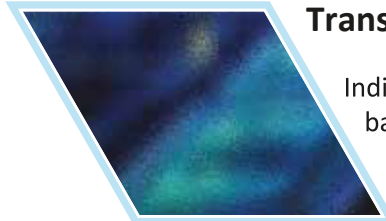
India's most efficient  
Solar PV Module -  
'DESERV Extreme'.

It delivers a front face output of  
390 Wp giving up to 500 Wp  
@30% Albedo.



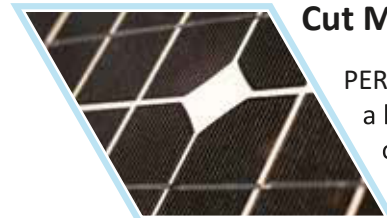
### Bi - Facial

Generates power from both  
sides, hence higher efficiency  
and power density



### Transparent Fluoro Backsheet

India's first transparent fluoro  
backsheet designed in-house



### Cut Mono PERC Cells

PERC Solar PV Cells have  
a better spectrum  
operating range and  
passivation

## KEY FEATURES



Made in India



Positive power  
tolerance



Highly reliable anti- reflective  
coated glass



High operating  
currents and voltages



More energy per  
square meter area



Better performance  
under shading

IMS Certified Company  
(ISO 9001: 2015, OHSAS 18001: 2007 & EMS - ISO 14001: 2015)

Independently Audited by  
**SOLARBUYER**

Performance under standard test conditions (1000w/m<sup>2</sup> AM 1.5, 25 °C)

### Operating Conditions

|                                    |            |
|------------------------------------|------------|
| Ambient Temperature (°C)           | -40 to +85 |
| Maximum System Voltage (Volts)     | 1000       |
| Hail impact Velocity (m/sec)       | 23         |
| Maximum Surface Load Capacity (Pa) | 5400       |

### Cell Temperature Coefficients

|                      |            |
|----------------------|------------|
| Open Circuit Voltage | -0.29% /°C |
| Short Circuit Power  | +0.05% /°C |
| Nominal Power        | -0.40% /°C |

### Physical Parameters

|                         |                 |
|-------------------------|-----------------|
| No. of Cells            | 144             |
| Module Dimensions (mm)  | 1987 x 987 (±2) |
| Module Thickness (mm)   | 40 or 35        |
| Approximate Weight (kg) | 23.5 or 23.2    |

### Mechanical Characteristics

|               |                                |
|---------------|--------------------------------|
| Cable         | NO. 12 AWG, 4 Sq. mm           |
| PV Connectors | MC4 Compatible                 |
| Frame         | Anodised Aluminium Alloy       |
| Junction Box  | IP67 Junction Box with 4 Rail  |
| Glass         | 3.2 mm Thick Low Iron Tempered |

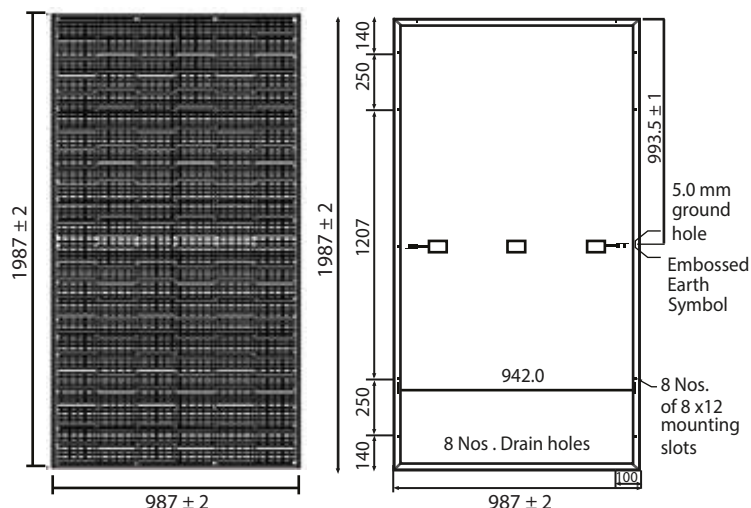
### NOCT (Wp) at 45 ± 2 °C @800 W/m<sup>2</sup>

|                               |        |
|-------------------------------|--------|
| Pmax (W)                      | 290.25 |
| Voltage Vmp (V)               | 36.49  |
| Current Imp (A)               | 07.96  |
| Open Circuit Voltage Voc (V)  | 44.97  |
| Short Circuit Current Isc (A) | 08.34  |

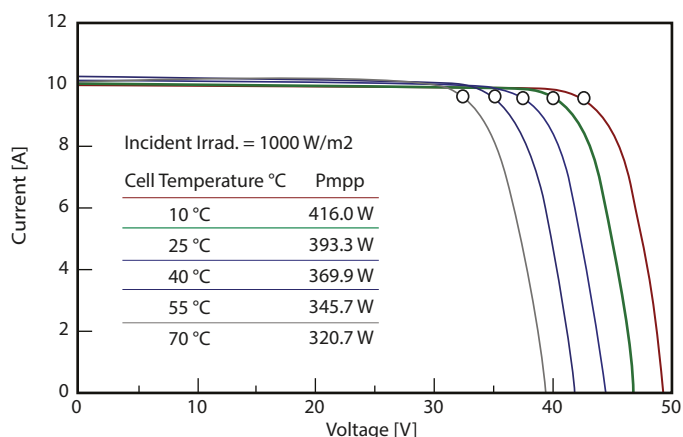
### Bi-Facial Gain @Different Albedo (%)

|             | P <sub>m</sub><br>(Wp) | V <sub>mp</sub><br>(V) | I <sub>mp</sub><br>(A) | V <sub>oc</sub><br>(V) | I <sub>sc</sub><br>(A) | Efficiency<br>(%) |
|-------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------|
| Front @ STC | 390.0                  | 39.9                   | 9.78                   | 48.36                  | 10.21                  | 19.88             |
| 5%          | 409.5                  | 39.9                   | 10.27                  | 48.36                  | 10.72                  | 20.88             |
| 10%         | 429.0                  | 39.9                   | 10.76                  | 48.36                  | 11.23                  | 21.87             |
| 15%         | 448.5                  | 39.9                   | 11.25                  | 48.36                  | 11.74                  | 22.86             |
| 20%         | 468.0                  | 39.9                   | 11.74                  | 48.46                  | 12.25                  | 23.86             |
| 25%         | 487.5                  | 39.9                   | 12.23                  | 48.46                  | 12.76                  | 24.85             |
| 30%         | 507.0                  | 39.9                   | 12.71                  | 48.46                  | 13.27                  | 25.85             |

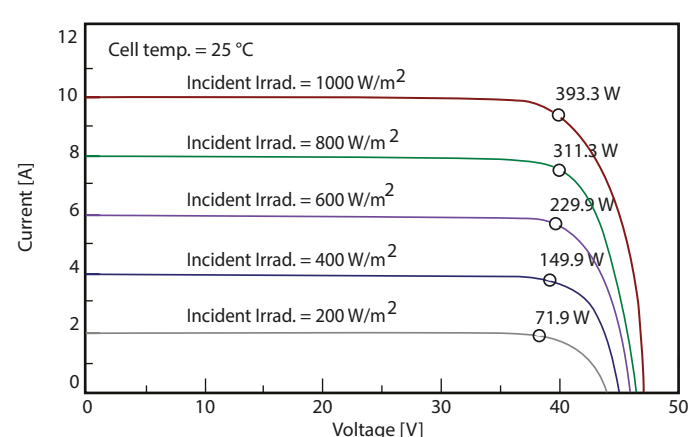
### Module dimensions (mm)



### I-V curves - Cell temperature sensitivity chart



### I-V curves - Incident irradiance sensitivity chart



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